

WHAT IS CLAIMED IS:

1. A method for selectively increasing glutamate and/or aspartate release in a central nervous system locus in a site-specific manner comprising the steps of:

5 selecting a central nervous system locus; and
 providing prolonged release of thyrotropin-releasing hormone *in situ* at the central nervous system locus over a period of time.

10 2. A method as defined in claim 1 wherein the providing step includes placing at least one non-spherical microstructure into the central nervous system locus, wherein the microstructure comprises thyrotropin-releasing hormone and a pharmaceutically acceptable carrier, and wherein the microstructure has a size and shape sufficient to prevent dispersion of the microstructure from the central nervous system locus.

15 3. A method as defined in claim 2 wherein the central nervous system locus is a specific location selected from the brain or spinal cord, and wherein the placing step includes implanting the microstructure stereotaxically into the central nervous system locus.

20 4. A method as defined in claim 3 wherein the implanting step includes inserting a cannula into the central nervous system locus and delivering the microstructure through the cannula to the central nervous system locus.